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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/098,619  | 03/18/2002  | Masatoshi Adachi     | 041514-5256         | 3688             |
| 9629  | 7590        | 05/18/2005           | EXAMINER            |                  |
| MORGAN LEWIS & BOCKIUS LLP<br>1111 PENNSYLVANIA AVENUE NW<br>WASHINGTON, DC 20004 |             |                      | GIESY, ADAM         |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2651                |                  |

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/098,619

Applicant(s)

ADACHI, MASATOSHI

Examiner

Adam R. Giesy

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-7 and 11-14 is/are rejected.  
7) ☒ Claim(s) 8-10 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 24 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/23/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono et al. (Ono - US Pat. No. 6,643,231 B2) in view of Shigemori (US Pat. No. 6,693,862 B1).

Regarding claim 1, Ono discloses a recording apparatus for a optical recording medium which has a recording position information section formed beforehand for bearing recording position information (Figure 1), the recording apparatus comprising: a discriminator for discriminating said recording position information (suggested by Figure 5, step 506); a detector for detecting a deviation between said address information recorded in said optical recording medium and said recording position information (suggested by Figure 5, step 507); and a controller for controlling the recording position of the data signal based on the deviation while recording the data signal (Figure 1, element 27). Ono does not disclose that the recording apparatus is for a write-once and/or re-recordable optical recording medium. Ono also does not disclose the recording of a data signal with address information.

Shigemori discloses an optical disk apparatus that can be used with both CD-ROMs (write-once optical recording media) and CD-Rs (re-recordable optical recording media) (see column 3, lines 19-26). Shigemori also discloses the use of a data signal for address information (suggested by column 5, lines 65-67 and also column 6, lines 12-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disk recording apparatus as disclosed by Ono with the multi-format optical apparatus as disclosed by Shigemori, the motivation being to allow the optical disk recording apparatus to be more versatile and record in different formats.

Regarding claim 2, the combination of Ono and Shigemori disclose all of the limitations of claim 1 as discussed in the claim 1 rejection above. Ono further suggests that the controller controls the recording position such that the difference between the address information and the said recording position information falls within a predetermined range (column 1, line 64 thru column 2, line 8).

Regarding claim 3, Ono discloses a recording apparatus for an optical recording medium which has a recording position information section formed beforehand for bearing recording position information (Figure 1), the recording apparatus comprising: a discriminator for discriminating said recording position information (suggested by Figure 5, step 506); a detector for detecting a deviation between recorded information from said optical recording medium and said recording position information (suggested by Figure 5, step 507); and a controller for controlling the recording position of the data signal based on the deviation while recording the data signal (Figure 1, element 27). Ono does not disclose that the recording apparatus is for a write-once and/or re-recordable optical recording medium. Ono also does not disclose the recording of a data signal with synchronization information or the use of synchronization information for the comparison of the position information.

Shigemori discloses an optical disk apparatus that can be used with both CD-ROMs (write-once optical recording media) and CD-Rs (re-recordable optical recording media) (see

column 3, lines 19-26). Shigemori also discloses the use of the 'sync frame' in order to find a position on the disk, thereby suggesting the synchronization information detection (see column 5, lines 1-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disk recording apparatus as disclosed by Ono with the multi-format optical apparatus and position information concept as disclosed by Shigemori, the motivation being to allow the optical disk recording apparatus to be more versatile and record in different formats.

Regarding claim 4, the combination of Ono and Shigemori disclose all of the limitations of claim 3 as discussed in the claim 3 rejection above. Ono further suggests that the controller controls the recording position such that the difference between the address information and the said recording position information falls within a predetermined range (column 1, line 64 thru column 2, line 8). Ono fails to disclose the comparison of the synchronization information.

Shigemori discloses the use of the synchronization information as disclosed in the claim 3 rejection above.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disclosures of Ono and Shigemori, the motivation being to ensure a shorter search time, knowing that the seek function would be performed within a specified range.

Regarding claim 5, Ono discloses a recording apparatus for an optical recording medium which has a recording position information section formed beforehand for bearing recording position information (Figure 1), the recording apparatus comprising: a discriminator for

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discriminating said recording position information (suggested by Figure 5, step 506); a detector for detecting a deviation between recorded information from said optical recording medium and said recording position information (suggested by Figure 5, step 507); and a controller for controlling the recording position of the data signal based on the deviation while recording the data signal (Figure 1, element 27). Ono does not disclose that the recording apparatus is for a write-once and/or re-recordable optical recording medium. Ono also does not disclose the use of a data signal for the comparison of the position information.

Shigemori discloses an optical disk apparatus that can be used with both CD-ROMs (write-once optical recording media) and CD-Rs (re-recordable optical recording media) (see column 3, lines 19-26). Shigemori also discloses the use of a data signal for address information (suggested by column 5, lines 65-67 and also column 6, lines 12-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disk recording apparatus as disclosed by Ono with the multi-format optical apparatus as disclosed by Shigemori, the motivation being to allow the optical disk recording apparatus to be more versatile and record in different formats.

Regarding claim 6, the combination of Ono and Shigemori disclose all of the limitations of claim 1 as discussed in the claim 1 rejection above. Shigemori further suggests that the controller controls the recording timing of the data signal. Shigemori does not disclose the timing being based on the deviation of the comparison of signals.

Ono discloses using the deviation of a signal comparison to control the controller as disclosed in the claim 1 rejection above.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disclosures of Ono and Shigemori, the motivation being to ensure a shorter record time.

Regarding claim 7, the combination of Ono and Shigemori disclose all of the limitations of claim 6 as discussed in the claim 6 rejection above. Shigemori further suggests that the controller controls the recording timing of the data signal. Shigemori discloses that the data signal is recorded at the speed of a recording clock (column 6, lines 1-3). Thereby, changing the recording timing (changing the speed of the recording clock) will change the position of the data signal being recorded on a disc that is being driven at a constant speed.

Regarding claim 11, the combination of Ono and Shigemori disclose all of the limitations of claim 1 as discussed in the claim 1 rejection above. Shigemori further discloses that the recording position information is information defined by a prepit (column 4, lines 25-36).

Regarding claim 12, the combination of Ono and Shigemori disclose all of the limitations of claim 1 as discussed in the claim 1 rejection above. Shigemori further discloses that the recording position information is information defined by wobbling (column 4, lines 25-36).

Regarding claims 13 and 14, the combination of Ono and Shigemori disclose all of the limitations of claims 3 and 5, respectively, as discussed in the claim 3 and 5 rejections above. Ono discloses using the deviation of a signal comparison to control the controller as disclosed in the claim 1 rejection above. Shigemori further suggests that the controller controls the recording timing of the data signal. Shigemori discloses that the data signal is recorded at the speed of a recording clock (column 6, lines 1-3 and also lines 42-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disclosures of Ono and Shigemori to provide a controller that controls the recording timing of the data signal based on the deviation, the motivation being to ensure an accurate recording.

*Allowable Subject Matter*

3. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 8 is allowable over prior art of record which does not disclose or suggest all of the limitations of claims 1 and 6, as well as the further limitation that the controller controls the difference between said address information and said recording position information to be within a predetermined range **by recording predetermined data in a recording area present between a recording end position and the position where the recording position information section is formed.**

Claim 9 is allowable over prior art of record which does not disclose or suggest all of the limitations of claims 1 and 6, as well as the further limitation that **an identifier for identifying a rewritable optical recording medium on which data is to be recorded, and an irregular-area detector for detecting an irregular recording area subject to the deviation, wherein the controller rewrites the data which has already recorded on the irregular recording area.**

Claim 10 is dependent upon the objected claim 9 and is therefore also considered to contain allowable subject matter.



*Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Negishi (US Doc. No. 2002/0122357 A1) discloses a similar positioning method with a read/reproducing drive.
- b. Hayashi et al. (US Doc. No. 2002/0101803 A1) discloses a data recorder and method of position/address acquisition.
- c. Nagata et al. (US Pat. No. 6,707,776 B2) discloses a recording method for optical media.
- d. Kimura et al. (US Pat. No. 6,192,013 B1) discloses an optical disc controlling method using a difference method.
- e. Aramaki (US Pat. No. 6,473,375 B1) discloses a method for recording data on an optical medium.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
W. R. YOUNG  
PRIMARY EXAMINER

ARG 5/11/05